^{62}Mn

Runte et al. reported the discovery of ^{62}Mn in 1983: "Decay Studies of Neutron-Rich Products from ^{76}Ge Induced Multinucleon Transfer Reactions Including the New Isotopes ^{62}Mn, ^{63}Fe, and ^{71,72,73}Cu" (1983Ru06). A 9 MeV/u ^{76}Ge beam from the GSI UNILAC accelerator was used to bombard a natural W target and ^{62}Mn was produced in deep inelastic reactions. The reaction products were collected in a graphite catcher inside a FEBIAD-E ion source and separated with an on-line mass separator. "In addition to the known nuclides of the elements chromium through germanium with A=56-75, we identified the decays of ^{62}Mn, ^{63}Fe, and ^{71,72,73}Cu, of which only ^{63}Fe was known from direct particle-identification measurements to be bound." The reported half-life was 0.88(15) s. This level corresponds to an isomer and the ground state of 92(13) ms was observed sixteen years later (1999So20). In 1980, only hints for the existence of ^{62}Mn were reported (1980Gu09).

Adapted from reference (2012Ga06)

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